

Table 1.

Alignment of human Slit-1 (SEQ ID NO:02), human Slit-2 (SEQ ID NOS:03-06), Drosophila Slit-1 (SEQ ID NO:07), C. elegans Slit-1 (SEQ ID NOS:08-09), mouse Slit-2 (SEQ ID NOS:10-11) and mouse Slit-1 (SEQ ID NOS:12-14).

1 M A A P S R T T L M P P P F R [L] Q [L] R [L] - [L] I [L] P [I] L L L L R H D A V H A E P Y D-Slit
 1 M R G V G W Q - - - - - M L S L S L G L V L A I L - - - - - - - - - H-Slit1

40 S G G F G S S A V S S G G L G S V G I H I P G G G V G V I T E A R C P R V C S C D-Slit
 21 - H-Slit1

80 T [G] L N [V D C] S H R G [L] T [S V P R] K I S A D V E R L E [L] Q G N N L T V I Y E T D D-Slit
 35 S G S T V D C H G L A L R S V P R N I P R N T E R L D L N G N N I T R I T K T D H-Slit1

120 F Q R [L] T K L R M L Q L T D N O [I] H T I E R N S F Q D L V S L E R L - - - - - D-Slit
 75 F A G L R H L R V L Q L M E N K I S T I E R G A F Q D L K E L E R L R L N R N H H-Slit1
 1 - - - - - H L R V L Q L M E N R I S T I E R G A F Q D L K E L E R L R L N R N N M-Slit1

154 - D I S N N V I T T V G R R V F K G A Q S L R D-Slit
 115 L Q L F P E L L F L G T A K K L Y R L D L S E N Q I Q A I P R K A F R G A V D I K H-Slit1
 36 L Q L F P E L L F L G T A R L K L Y R L D L S E N Q I Q A I P R K A F R G A V D I K M-Slit1

176 S [L] Q L D N N Q I T C L D E H A F K G L V E L E I L T L N N N N L T S L P H N I D-Slit
 155 N L Q L D Y N Q I S C I E D G A F R A L R D L E V L T L N N N N I T R L S V A S H-Slit1
 76 N L Q L D Y N Q I S C I E D G A F R A L R D L E V L T L N N N N I T R L S V A S M-Slit1

216 F G G L G R L R A L R L S D N P F A C D C H L S W L S R F L R S A T R L A P Y T D-Slit
 195 F N H M P K L R T F R L H S N N L Y C D C H L A W L S D W L R K R P R V G L Y T H-Slit1
 116 F N H M P K L R T F R L H S N N L Y C - M-Slit1

256 R [C] Q S P S Q [L] K [G] Q N V A D L H D Q E F K C S G L T E - H A P M - - - E [C] G A D-Slit
 235 Q C M G P S H L R G H N V A E V Q K R E F V C S D E E E G H Q S F M A P S C S V H-Slit1

292 E N S C P H P C R C A D G I V D C R E K S L T S V P V T L P D D T T D V R L E Q D-Slit
 275 L H - C P A A C T C S N N I V D C R G K G L T E I P T N L P E T I T E I R L E Q H-Slit1
 1 - - - - - S P C T C S N N I V D C R G K G L M E I P A N L P E G I V E I R L E Q H-Slit2

332 N F I T E L P P K S F S S F R R L R R I D L S N N N I S R I A H D A L S G L K Q D-Slit
 314 N T I K V I P P G A F S P Y K K L R R I D L S N N N Q I S E L A P D A F Q G L R S H-Slit1
 36 N S I K A I P A G A F T Q Y K K L K R I D I S K N O I S D I A P D A F O G L K S H-Slit2

372 L T T L V L Y G N K I K D L P S G V F K G L G S L R L L L N A N E I I S C I R K D-Slit
 354 L N S L V L Y G N K I T E L P K S L F E G L F S L Q L L L N A N K I N C L R V H-Slit1
 76 L T S L V L Y G N K I T E I A K G L F D G L V S L O L L L - H-Slit2

1 D A F R D L H S L S L L S L Y D N N I Q S L A N G T F D A M K S M K T V H L A K R C E-Slit
 412 D A F Q D L H N L N L L S L Y D N K L Q T I A K G T F S P L R A I Q T M H L A K D-Slit
 394 D A F Q D L H N L N L L S L Y D N K L Q T I A K G T F S P L R A I Q T M H L A Q H-Slit1

2 N P I C D C N L Q W L A Q I N L Q K N I E T S G A R C E Q P K R L R K K K F A CE-Slit
 452 N P F I C D C N L R W L A D Y L H K N P I E T S G A R C E S P K R M H R R R I E D-Slit
 434 N P F I C D C H L K W L A D Y L H T N P I E T S G A R C T S P R R L A N K R I G H-Slit1

42 T L P P N K F K C K G S E S F V S M Y A D S C F I D S I C P T Q C D C Y G T T V CE-Slit
 492 S L R E E K F K C S - W G E L R M K L S G E C R M D S D C P A M C H C E G T T V D-Slit
 474 Q I K S K K F R C S G T E D Y R S K L S G D C F A D L A C P E K C R C E G T T V H-Slit1

82 D C N K R G L N T I P T S I P R F A T Q L L S G N N I S T V D L N S N I H V L CE-Slit
 531 D C T G R R L K E I P R D I P L H T T E L L L N D N E L G R I S S D G L F G R L D-Slit
 514 D C S N Q K L N K I P E H I P Q Y T A E L R L N N N E F T V L E A T G I F K K L H-Slit1

122 E N L E X L D L S N N H I T F I N D K S F E K L S K L R E L X L N D - - - - - CE-Slit
 571 P H L V K L E L K R N Q L T G I E P N A F E G A S H I Q E L Q L G E N K I K E I D-Slit
 554 P Q L R K I N F S N N K I T D I E E G A F E G A S G V N E I L T S N R L E N V H-Slit1
 1 - - - - - E G A F N G A A S V Q E L M L T G N Q L E T V H-Slit2

611 S N K M F - - - - - L G L H Q L K T L N D-Slit
 594 Q H K M F K G - L E S L K T L M L R S N R I T C V G N D S F I G L S S V R L L S H-Slit1
 24 H G R G F R G G L S G L K T L M L R S N L I G C V S N D T F A G L S S V R L L S H-Slit2

626 L Y D N Q I S C V M P G S F E H L N S L T S L N L A S N P F N C N C H L A W - F D-Slit
 633 L Y D N Q I T T V A P G A F D T L H S L S T L N L L A N P F N C N C Y L A W - L H-Slit1
 64 L Y D N R I T T I T P G A F T T L V S L S T I N L L S N P F N C N C H L G A G L H-Slit2

665 A E C V R K K S L N G G A A R C G A P S K V R D V Q I K D L P H S E F K C S S E D-Slit
 672 G E W L R K K R I V T G N P R C Q K P Y F L K E I P I Q D V A I Q D F T C D D G H-Slit1
 104 G K W L R K R R I V S G N P R C Q K P F F L K E I P I Q G V G H P G I H-Slit2

1 S N K M F - - - - - S N K N L T S F P S R I P F D CE-Slit
 705 N S E - G C L G D G Y C P P S C T C T G T V V A C S R N Q L K E I P R G I P A E D-Slit
 712 N D D N S C S P L S R C P T E C T C L D T V V R C S N K G L K V L P K G I P R D H-Slit1

16 T T E L Y L D A N Y I N E I P A H D L N R L Y S L T K L D L S H N R L I S L E N CE-Slit
 744 T S E L Y L E S N E I E Q I H Y E R I R H L R S L T R L D L S N N Q I T I L S N D-Slit
 752 V T E L Y L D G N Q F T L V P K E - L S N Y K H L T L I D L S N N R I S T L S N H-Slit1

56 N T F S N L T R L S T L I I S Y N K L R C L Q P L A F N G L N A L R I I L S L H G CE-Slit
 784 Y T F A N L T K L S T L I I S Y N K L Q C L Q R H A L S G L N N L R V V S L H G D-Slit
 791 Q S F S N M T Q L L T L I L S Y N R L R C I P P R T F D G L K S L R L L S L H G H-Slit1

96 N D I S F I L P Q S A F S N L T S I T H I A V G S N S L Y C D C N M A W F S K W I CE-Slit
 824 N R I S M L P E G S F E D L K S L T H I A L G S N P L Y C D C G L K W F S D W I D-Slit
 831 N D I S V V P E G A F N D L S A L S H L A I G A N P L Y C D C N M Q W L S D W V H-Slit1

136 K S K F I E A G I A R C E Y P N T V S N Q L L L T A Q P Y Q F T C D S K V P T K CE-Slit
 864 K L D Y V E P G I A R C A E P E Q M K D K L I L S T P S S S F V C R G R V R N D D-Slit
 871 K S E Y K E P G I A R C A G P G E M A D K L L T T P S K K F T C Q G P V D V N H-Slit1

176 LATKCDLCLNSPCKNNAIICEETTSSSRKYTCNCPTPGFYGVHCE-Slit
 904 ILAKCNACFEQPCQONQAQCVALPQREYQCLCQPGYHGHCKD-Slit
 911 ILAKCNPCLSNPCKNDGTCNSDPVDFYRCTCPYGFKGQDCH-Slit1

216 ENQIDACYGSPCLNNATCKV - - AQAGRNFNCYCNKGFEYDCE-Slit
 944 EFMIDACYGNPCCRNNATCTV - - LEEGRFSCQCAPGTYTGA RD-Slit
 951 DVPPIHACISNPCKHGGTCHLKEGEEDGFWCICADGFEGENH-Slit1

254 CEKNIIDDCVNS-KCENG GKCVDLVRFCSEELKNFQSFOIN CE-Slit
 982 CETNIIDDCLGIEIKCQNNATCIDI - - - - - - - - - - GVE D-Slit
 991 CEVNVDDC-EDNDCEENNSTCVD - - - - - - - - - - GIN H-Slit1

293 SYRCDCPMEYEKGKHCEDKLEYCTKKLNPCEENNGKCIPING CE-Slit
 1007 SYKCECQPGFSGEFCDTAKIQFCSPFNPACANGAKCMDHFT D-Slit
 1015 NYTCLCPPEYTGELCEEKLDLDFCAQDLNPCQHDSKCIILT P K H-Slit1
 DPLPV M-Slit2

333 SYSCMCSPGFTTGNNCEETNIIDDCKNVECQNGGSCVDGILSY CE-Slit
 1047 HYSCDCQAGFHGTNCTDNIIDDCQNHMCQNGGTCVDGIN D Y D-Slit
 1055 GFKCDCTPGYVGEHCDIDFDDCQDNKCKNGAHCTDAVN G Y H-Slit1
 1 - - - - - - - - - - NNDDCVGHKCRHGAQCVDEVNG Y M-Slit1
 1 WPRCECMPGYAGDNCSENQDDCRDHRCQNGAQCMDEVNSY H-Slit2
 6 HHRCECMLGYTGDNCSENQDDCKDHKCQNGAQCVDEVNSY M-Slit2

373 DCLCRPGYAGQYCEIPPMMDMEYQKTDACQQSACGQG - E C CE-Slit
 1087 QCRCPPDDYTGKYCEGHNMISMMPOTSPCQNHHECKHGVD C D-Slit
 1095 TCIICPEGYSGLFCEFSP - - PMVLPRTSPCDNFDCQNGAQ C H-Slit1
 24 TCIICPQGFSGLFCEHPP - - PMVLLQTSPCDQYECQNGAQ C M-Slit1
 41 SCLCAEGYSGQLCEIPP - - HLPAPK-SPCEGTECQNGANC H-Slit2
 46 ACLCVVEGYSGQLCEIPP - - - - APR-SSCEGTECQNGANC M-Slit2

412 VASQN - SSDFTCCKCHEGFSGSPSCDRQMSVGFKNPGAYLAL CE-Slit
 1126 FQPNAAQGSDYLCRCHPGYTGKWC EYLT SISFVHNNSFVEL D-Slit
 1133 IVRINEP - - - ICQCLPGYQGEKCEKLVSVNFINKESYLOI H-Slit1
 62 IVVQQEP - - - TCRCPGFGAGPRCEKLI TVNFVGKDSYVEL M-Slit1
 78 VDQGNRP - - - VCQCLPGFGGPEC EKLLSVNFVDRDTYLOF H-Slit2
 80 VDQGSRP - - - VCQCLPGFGGPEC EKLLSVNFVDRDTYLOF M-Slit2

451 DPLAS - - DGTITMTLRTTTSKIGILLYYGDDHFVSAELYD G CE-Slit
 1166 EPLRTRPEANVTIVFS SAEQNGILM Y D G Q D A H L A V E L F N G D-Slit
 1170 PSAKVRPQTNITLQIA T D E D S G I L L Y K G D K D H I A V E L Y R G H-Slit1
 99 A SAKVR - M-Slit1
 115 TDLQNWXRXNITLQVF TAE DNG ILL LYNGGNDHIAVXLY X G H-Slit2
 117 TDLQNWPRANITLQVSTAEDNG ILL LYNGDN D H I A V E L Y M-Slit2

489 RVKLVYYIGNFPASHHMYS SVKVN DGLPLPHRISIRT SERKCF CE-Slit
 1206 RIRVSYDVGNHPVSTMYSFEMVA D G K Y H A V E L L A I K K N F T D-Slit
 1210 RVRA SYDTGSHPASA I Y S V E T I N D G N F H I V E L L A L D Q S L S H-Slit1
 155 HVRFSSY - H-Slit2

529 LQIDKNPVQIVEENSGKSDQ LITK G K E M L Y I G G L P I E K S Q D CE-Slit
 1246 LRVDRGLARSIIINEG S N D Y L - - K L T T P M F L G G L P V D P A Q Q D-Slit
 1250 LSV DGGNPKIITNL SKIQSTL - - N F D S P L Y V G G M P G K S N V A H-Slit1
 1 I L - D V A M-Slit1

Table 2.

Alignment of human Slit-1 (SEQ ID NO:02) and Drosophila Slit-1 (SEQ ID NO:07)

1	M A A P S R T T L M P P P F R [L] Q [L] R [L] - [L] I [L] P I L L L L R H D A V H A E P Y D-Slit	
1	M R G V G W Q - - - - - M L S L S L G L V L A I L - - - - - - - - - H-Slit1	103
40	S G G F G S S A V S S G G L G S V G I H I P G G G V G V I T E A R [C] P R V [C] S C D-Slit	
21	- - - - - - - - - - - - - - - N K V A P Q A C P A Q C S C H-Slit1	
80	T [G] L N [V] D C S H R G L T [S] V P R K I S A D V E R L E L Q G N N L T V I Y E T D D-Slit	
35	S G S T V D C H G L A L R S V P R N I P R N T E R L D L N G N N I T R I T K T D H-Slit1	
120	F Q R L T K L R M L Q L T D N Q I H T I E R N S F Q D L V S L E R L - - - - - D-Slit	
75	F A G L R H L R V L Q L M E N K I S T I E R G A F Q D L K E L E R L R L N R N H H-Slit1	
154	- - - - - - - - - D I S N N V I T T V G R R V F K G A Q S L R D-Slit	
115	L Q L F P E L L F L G T A K L Y R L D L S E N Q I Q A I P R K A F R G A V D I K H-Slit1	
176	S L Q L D N [N] Q I T C L D E H A F K G L V E L E I L T L N N N N L T S L P H N I D-Slit	
155	N L Q L D Y [N] Q I S C I E D G A F R A L R D L E V L T L N N N N I T R L S V A S H-Slit1	
216	F G G L G R L R A L R L S D N P F A C C D C H L S W L S R F L R S A T R L A P Y T D-Slit	
195	F N H M P K L R T F R L H S N N L Y C D C H L A W L S D W L R K R P R V G L Y T H-Slit1	
256	R C Q S P S Q L K G Q N V A D L H D Q E F K C S G L T E - H A P M - - E C G A D-Slit	
235	Q C M G P S H L R G H N V A E V Q K R E F V C S D E E E G H Q S F M A P S C S V H-Slit1	
292	E N S C P H P C R C A D G I V D C R E K S L T S V P V T L P D D T T D V R L E Q D-Slit	
275	L H - C P A A C T C S N N I V D C R G K G L T E I P T N L P E T I T E I R L E Q H-Slit1	
332	N F I T E L P P K S F S S F R R L R R I D L S N N N I S R I A H D A L S G L K Q D-Slit	
314	N T I K V I P P G A F S P Y K K L R R I D L S N N Q I S E L A P D A F Q G L R S H-Slit1	
372	L T T L V L Y G N K I K D L P S G V F K G L G S L R L L L L N A N E I S C I R K D-Slit	
354	L N S L V L Y G N K I T E L P K S L F E G L F S L Q L L L L N A N K I N C L R V H-Slit1	
412	D A F R D L H S L S L L S L Y D N N I Q S L A N G T F D A M K S M K T V H L A K D-Slit	
394	D A F Q D L H N L N L L S L Y D N K L Q T I A K G T F S P L R A I Q T M H L A Q H-Slit1	
452	N P F I C D C N L R W L A D Y L H K N P I E T S G A R C E S P K R M H R R R I E D-Slit	
434	N P F I C D C H L K W L A D Y L H T N P I E T S G A R C T S P R R L A N K R I G H-Slit1	
492	S L R E E K F K C S - W G E L R M K L S G E C R M D S D C P A M C H C E G T T V D-Slit	
474	Q I K S K K F R C S G T E D Y R S K L S G D C F A D L A C P E K C R C E G T T V H-Slit1	
531	D C T G R R L K E I P R D I P L H T T E L L L N D N E L G R I S S D G L F G R L D-Slit	
514	D C S N Q K L N K I P E H I P Q Y T A E L R L N N N E F T V L E A T G I F K K L H-Slit1	

1183 A [E] Q N G I L M Y D [G] Q D A H L A V E L F N G R I R V S Y D V G N H P V S T M Y D-Slit
 1187 D E D S G I L L Y K G D K D H I A V E L Y R G R V R A S Y D T G S H P A S A I Y H-Slit1

1223 [S] F [E] M V A D G K Y H A V E L L A I K K N F T L R V D R G L A R S I I N E G S N D-Slit
 1227 S V E T I N D G N F H I V E L L A L D Q S L S L S V D G G N P K I I T N L S K Q H-Slit1

1263 D Y L K L T T P M F L G G L P V D P A Q Q A Y K N W Q I R N L T S F K G C M K E D-Slit
 1267 S T L N F D S P L Y V G G M P G K S N V A S L R Q A P G Q N G T S F H G C I R N H-Slit1

1303 V W I N H K L V D F G N A Q R Q Q K I T P G C A L - - - L E G E Q Q E E D D D-Slit
 1307 L Y I N S E L Q D F Q K V P M Q T G I L P G C E P C H K K V C A H G T C Q P S S H-Slit1

1339 E Q D F M D E - - - - T P H I K E E P V D P C L E N K C R R G S R C V P N S D-Slit
 1347 Q A G F T C E C Q E G W M G P L C D Q R T N D P C L G N K C V H G T - C L P I N H-Slit1

1373 N A R D G Y Q C K C K H G Q R G R Y C D Q G E G S T E P - - - - - D-Slit
 1386 A F - - S Y S C K C L E G H G G V L C D E E E D L F N P C Q A I K C K H G K C R H-Slit1

1401 - - - - - P T V T A A S - - - T C R K E Q V R E Y Y T E N D - D-Slit
 1424 L S G L G Q P Y C E C S S G Y T G D S C D R E I S C R G E R I R D Y Y Q K Q Q G H-Slit1

1423 - - - C R S R Q P L K Y A K C V G G C - G N Q C C A A K I V R R R K V R M V C S D-Slit
 1464 Y A A C Q T T K K V S R L E C R G G C A G G Q C C G P L R S K R R K Y S F E C T H-Slit1

1459 N N R K Y I K N L D I V R K C G C T K K C Y D-Slit
 1504 D G S S F V D E V E K V V K C G C T R - C V S H-Slit1